CV

Name: Pozsgai Balázs Sándor
used in scientific works: Balázs Pozsgay
Date of birth: 03.03.1983. (Pécs, Hungary)
Nationality: Hungarian

CURRENT POSITION:

09/2020-, MTA-ELTE ,,Momentum" Integrable Quantum Dynamics Research Group,
      Eötvös Loránd University Budapest, Department of Theoretical Physics

PREVIOUS EMPLOYMENT:
- 09/2019-08/2020, MTA-BME Quantum Dynamics and Correlations Research Group, Budapest University of Technology and Economics, Department of Theoretical Physics
- 09/2016-08/2019, MTA ,,Prémium" Postdoctoral Research Fellow, Budapest University of Technology and Economics, Department of Theoretical Physics
- 01/2013-08/2019, MTA-BME ,,Momentum" Statistical Field Theory Research Group, Budapest University of Technology and Economics, Department of Theoretical Physics
- 01/2011-12/2012, Instituut voor Theoretische Fysica, Universiteit van Amsterdam, NWO/VENI Vernieuwingsimpuls (Innovational Research Incentives Scheme)
- 11/2009-12/2010, ITF, Universiteit van Amsterdam, Stichting FOM

AREA OF RESEARCH:
Exactly solvable models, Integrable Quantum Field Theories in 1+1 dimensions, Algebraic Bethe Ansatz, Non-equilibrium dynamics in Integrable models

EDUCATION:

09/2006-10/2009
PhD in Physics, Eötvös Loránd University, Summa cum laude
supervisor: Gábor Takács, date of defense: 14.12.2009

09/2001-06/2006
MSc in Physics, Eötvös Loránd University Diploma with distinction
Supervisor: Gábor Takács

GRANTS AS PRINCIPAL INVESTIGATOR

- 09/2020-08/2025, ,,Momentum" grant of the Hungarian Academy of Sciences, total budget: 217 M HUF
- 09/2018- 01/2020, KH-17 grant of the hungarian research funding agency NKFIH, 20 M HUF, spent mainly for the employment of a postdoctoral researcher,

- 09/2016-08/2019, MTA Premium Postdoctoral Program, 29 M HUF
- 01/2013-12/2013, Magyary Zoltán Postdoctoral Fellowship
  4.2 M HUF
- 01/2011-12/2012, Vernieuwingsimpuls (Innovational Research Incentives Scheme)
  NWO/VENI, Postdoctoral Fellowship
  221K euro

GRANTS AS PARTICIPANT

- 10/2016-09/2020, K-119204 grant of NKFIH
- 07/2016-08/2020, SNN-118028 grant of NKFIH

SCHOLARSHIPS, FELLOWSHIPS and PRIZES

- 2019 UNKP Bolyai+ Scholarship, Ministry for Innovation and Technology
- 2019 Bolyai Scholarship of the Hungarian Academy of Sciences
- 2019 **'Novobátzky Prize'** of the Roland Eötvös Physical Society
- 2. May 2018, 'The Most Excellent Scientific Publication of the BME 2013-2017' award
- 4. September 2017, Burgen Scholarship, Academia Europaea
- 2016 Bolyai Scholarship (cancelled due to the Premium Postdoctoral Program which did not allow for additional grants of this type)
- 26. November 2014, **Junior Príma Award**
- April-June 2008, (as a PhD student) INSTANS Exchange Grant of the European Science Foundation SPhT Saclay, France (supervisor: Hubert Saleur)
- Summer Semester 2005, (as an MSc student) EMSPS (European Mobility Scheme for Physics Students) scholarship of the European Physical Society Friedrich Schiller Universität Jena, Germany
- 2003, 2004 and 2005 Scholarship of the Hungarian Republic
- 2005/2006 „Excellent Student of the Faculty" reward

SUPERVISION

PhD, MSc and BSc students:
- 2019-, **Levente Pristyák (PhD student),** (was also MSc student, 2017-2019) Budapest University of Technology and Economics (BME)
- 2020-, **Márton Borsi (PhD student),** (was also MSc and BSc student, 2018-2020) BME
- 2020-2021, Attila Takács (BSc), BME
- 2016-2017, Hajnalka Korka (MSc), Eötvös University
- 2015-2016, Olivér Rákos (MSc), BME,
- 2013-2015, Márton Mestyán (MSc)
- 2011-2012, Willem-Victor van Gerven Oei (MSc): University of Amsterdam

INVITED LECTURE COURSES

- 8-12. February 2021, *„Introduction to the Bethe Ansatz''*, online event, SFT 2021 - Lectures on Statistical Field Theories, The Galileo Galilei Institute For Theoretical Physics, Firenze

INVITED TALKS

- 25. November 2021, Leeds-Loughborough-Nottingham Non-Equilibrium Seminars (online), *Lindblad equations with Yang-Baxter integrability*
- 23. September 2021, Conference „The art of mathematical physics, a conference to celebrate the 60th birthday of Hubert Saleur'', (online talk) *Medium range integrable spin chains*
- 16. September 2021, Conference „Correlation functions and wave functions in solvable models'', IPhT Saclay, Paris, France, *Medium range integrable spin chains*
- 21-24. September 2020, Conference „Talking Integrability: Spins, Fields and Strings" (canceled due to COVID-19)
- 21-25. September 2020, Workshop „Great Lessons from Exact techniques and Beyond" (canceled due to COVID-19)
- 29. June 2020, Budapest University of Technology and Economics, Exotic Quantum Phases group seminar, *Current operators and their mean values in integrable spin chains (online seminar)*
- 11. June 2020, University of Ljubljana, Department of Physics, Seminar, Ljubljana, Slovenia, *Algebraic construction of current operators (online seminar)*
- 16. December 2019, CGI Workshop 'Integrable effective field theories and their holographic descriptions', Firenze, Italy, *TTbar-deformation and long range spin chains*
- 7. October 2019, CERN Theory Seminar, Geneva, Switzerland, *Mean values of current operators in integrable models*
- 16. May 2019, Workshop „Emergent Hydrodynamics in low dimensional quantum systems", International Institute of Physics, Natal, Brazil, *Mean values of current operators in Bethe Ansatz solvable models*
- 22. November 2018, Niels Bohr Institute, Copenhagen, *One-point functions in defect CFT, Integrable Matrix Product States, and boundary integrability*
- 5. September 2018, Correlations in Integrable Quantum Many-Body Systems, Wuppertal, *Recent exact results for non-equilibrium dynamics in integrable models*
- 21. August 2018, **Integrability in Gauge and String Theory, IGST18**, Stockholm, *One-point functions in defect CFT, Integrable Matrix Product States, and boundary integrability*
- 23. May 2018, Correlation Functions in Solvable Models, Nordita, Stockholm, *Integrable states of spin chains from the Boundary Yang-Baxter relation*
- 16. April 2018, Workshop on higher-point correlation functions and integrable AdS/CFT, HMI Dublin, *Integrable states in spin chains and exact overlap formulas*
- 14. November 2017, Tokyo University, Seminar, *Integrable initial states of integrable spin chains*
- 6. October 2017, Workshop „Wonders of Broken Integrability", Simons Center for Geometry and Physics, Stony Brook, USA, *Integrable quenches of integrable spin chains*
- 31. July - 1. August 2017, Cargèse Summer School „Exact methods in low dimensional statistical physics", Cargèse, Corsica, France, *Non-equilibrium dynamics of the Heisenberg spin chain: Exact methods*

- 05. September 2016, Workshop „Finite-Size Technology in Integrable Models", Beijing, China, *Quantum quenches and excited state correlations of the XXZ and XXX spin chains*
- 28. June 2016, SISSA Seminar, Trieste, Italy, *Quantum quenches and correlation functions in the XXZ spin chain*
- 11. April 2016, Workshop „Correlations in Integrable Quantum Many-Body Systems", University of Wuppertal, Germany, *Quantum quenches and excited state correlations in the XXZ spin chain*
- 26. November 2015, ENS Paris / CEA Saclay, *Form Factor approach to finite size and finite temperature corrections in Integrable QFT*
- 16. June 2015, Workshop „Integrable Approaches to 3pt functions in AdS5/CFT4", Budapest, *Finite volume matrix elements in Integrable QFT: Some exact results*
- 26. June 2014, Workshop „Finite-size Technology in Low Dimensional Quantum Systems", Budapest, *Quantum Quenches in the XXZ spin chain and the Generalized Gibbs Ensemble*
- 13. January 2011, University of Wuppertal, Germany, *On O(1) contributions to the free energy in Bethe Ansatz systems: the exact g-function*
- 14. July 2010, Centro de Ciencias de Benasque, Spain, *The exact g-function: Solution of a puzzle*
- 13. October 2008, LPTA, Université Montpellier II., France, *Finite volume form factors and finite temperature correlation functions*

TEACHING
- **Introduction to Quantum Integrable models** (lecture, autumn 2021/22, ELTE)
- Mechanics 2 (exercise class, spring 2019/20, BME)
- Mechanics 1 (exercise class, autumn 2019/20, BME)
- **Lie groups in Physics** (lecture, spring 2018/19, BME)
- Mechanics 2 (exercise class, spring 2018/19, BME)
- Mechanics 1 (exercise class, autumn 2018/19, BME)
- Electrodynamics 1 (exercise class, autumn 2017/18, BME)
- Mathematical methods in physics 1. (exercise class, spring 2015/16, BME)
- Introduction to Mechanics (exercise class, autumn 2015/16, BME)
- Analysis for CS students (exercise class, spring 2012/13, BME)
- 4 courses between 2006 and 2009 as a PhD student, ELTE

COMPETITIONS DURING UNIVERSITY
2002-2003, Rudolf Ortvay Physics Competition, overall winner

COMPETITIONS DURING HIGH SCHOOL
2001, 32. International Physics Olympiad in Antalya, Turkey, silver medal
2000, 31. International Physics Olympiad in Leicester, United Kingdom, gold medal
2001, National Competition in Physics, 1. prize